

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-20 (canceled)

Claim 21 (new): A semiconductor wafer cleaning apparatus comprising:

a loading unit having a wafer cassette, said cassette being configured to support a plurality of semiconductor wafers horizontally as parallel to an X-Y plane;

a first wafer moving mechanism movable along the direction of a Y-axis in said X-Y plane towards and away from said cassette to extract wafers from said cassette, said first wafer moving mechanism comprising a pad configured to support the wafers, and a revolving body to which said pad is connected, said revolving body being rotatable about an X-axis perpendicular to said Y-axis and also lying in said X-Y plane, whereby rotation of said revolving body about said X-axis from a first position to a second position elevates the wafers supported by said pad and orients the wafers vertically;

an inner bath spaced apart from said loader along the direction of said X-axis, and in which the semiconductor wafers are cleaned with a cleaning solution;

a marangoni dryer including a hood that is movable along the direction of said X-axis and vertically along the direction of a Z-axis that is orthogonal to said X- and Y- axes, said hood being supported above said inner bath, wherein downward movement of said hood along the direction of said Z-axis can bring said hood against the inner bath in a sealed engagement therewith, and upward movement of said hood along the direction of said Z-axis can space said hood vertically above said inner bath; and

a knife that supports the semiconductor wafers loaded into the inner bath at a lower portion of the inner bath, and is movable along the direction of said Z-axis to raise and lower the semiconductor wafers supported thereon relative to said inner bath.

Claim 22 (new): The semiconductor cleaning apparatus according to claim 21, and further comprising a loader interposed between said first wafer moving mechanism and said inner bath with respect to the direction of said X-axis and configured to support a plurality of semiconductor wafers as oriented vertically, and a second semiconductor wafer moving mechanism movable along the directions of said X- and Z- axes between said first wafer moving mechanism and said loader, said second semiconductor wafer moving mechanism being operable to transfer wafers from said pad, while said pad is in said second position thereof, to said loader, and wherein said hood of the marangoni dryer is movable between said loader and said inner bath.

Claim 23 (new): The semiconductor cleaning apparatus according to claim 22, wherein said loader includes a pusher that is configured to support the semiconductor wafers as oriented vertically and is movable along the direction of said Z-axis so as to transfer wafers received from said second moving mechanism to said hood of the marangoni dryer.

Claim 24 (new): The semiconductor cleaning apparatus according to claim 22, wherein said second wafer moving mechanism includes a clutch capable of clutching said wafers, and rails extending longitudinally in the directions of said X- and Z- axes, respectively, said clutch being supported by said rails so as to be movable therealong.

Claim 25 (new): The semiconductor cleaning apparatus according to claim 21, wherein said hood has slots extending vertically therein for accommodating a plurality of semiconductor wafers, respectively, and a locking mechanism operable to selectively lock a plurality of semiconductor wafers within said slots and release the wafers from the slots.

Claim 26 (new): The semiconductor cleaning apparatus according to claim 22, wherein said hood has slots extending vertically therein for accommodating a

plurality of semiconductor wafers, respectively, and a locking mechanism operable to selectively lock a plurality of semiconductor wafers within said slots and release the wafers from the slots.

Claim 27 (new): The semiconductor cleaning apparatus according to claim 23, wherein said hood has slots extending vertically therein for accommodating a plurality of semiconductor wafers, respectively, and a locking mechanism operable to selectively lock a plurality of semiconductor wafers within said slots and release the wafers from the slots.

Claim 28 (new): The semiconductor cleaning apparatus according to claim 21, wherein said marangoni dryer comprises a drying solution supply plate disposed within said hood and having a plurality of holes, and a drying solution supply nozzle that supplies drying solution into said hood above said drying solution supply plate, whereby drying solution supplied by said drying solution supply nozzle is sprayed by said drying solution supply plate through the holes thereof.

Claim 29 (new): The semiconductor cleaning apparatus according to claim 25, wherein said marangoni dryer comprises a drying solution supply plate disposed within said hood and having a plurality of holes, and a drying solution supply nozzle

that supplies drying solution into said hood above said drying solution supply plate, whereby drying solution supplied by said drying solution supply nozzle is sprayed by said drying solution supply plate through the holes thereof.

Claim 30 (new): The semiconductor cleaning apparatus according to claim 21, and further comprising outer baths disposed at opposite sides of the top of said inner bath, respectively, and wherein said inner bath has recesses at opposite sides of the top thereof, said recesses opening into said outer baths, respectively, such that cleaning solution in said inner bath can flow through said recesses into said outer baths.

Claim 31 (new): The semiconductor cleaning apparatus according to claim 30, and further comprising exhaust lines connected to said outer baths, respectively, whereby cleaning solution can be exhausted from said outer baths.

Amendments to the Drawings

The attached sheets of drawings will replace the sheet with original FIG. 1 and the sheet with original FIGS. 12A and 12B, respectively. The attached sheet, which includes FIG. 1, adds double-headed arrows indicating the disclosed ability of the first wafer moving mechanism 9a, 9b to move along the direction of the Y-axis (par. [0025]), of the clutch 11a to move along the direction of the Y-axis (par. [0026]), and of the marangoni dryer to move along the direction of the Y-axis (par. [0031]). The attached sheet, which includes FIGS. 12A and 12B, is merely an original which makes the field of these figures clearer.

Attachments: Replacement Sheet